

Mapping food practices in rural Italy: consumer diversity as a key to informing sustainable food policy

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ABSTRACT

The global food system looms as a major contributor to a wide range of increasingly threatening sustainability challenges which encompass the environment, human health, justice and ethics. Hitherto food policy has relied on behavioural theories to encourage consumers towards sustainable food practices, albeit with limited success. This study delves into consumers' daily choices and attitudes to food, using theory of practice as a framework. Designed as a case study located in the Valle dei Laghi biodistrict, Italy, thirty-six semi-structured interviews with open-ended questions were conducted with consumers and producers. Direct observation was used to enhance the validity and credibility of the results. In addition to the *food citizen* and *passive consumer* widely discussed in literature, the existence of two additional consumer profiles, termed the *pragmatic consumer* and the *tradition-driven consumer*, was identified. The *pragmatic consumer*, despite an understanding of sustainability related issues, adopts food choices rooted in convenience and opportunism. The *tradition-driven consumer*, in contrast, deploys unconsciously highly sustainable practices that can be traced back to the notion of *quiet sustainability*. In this article we discuss the significance of these findings for the design of policy interventions tailored to sustain a transformation towards sustainable food systems and propose practice-oriented policy measures to adjust and complement current policy.

1. Introduction

The need to recast the global food system is widely acknowledged. Ecological degradation in the form of biodiversity loss, breakdown of the ecosystems, destabilisation of the nitrogen and phosphorus cycles, unsustainable freshwater consumption and water pollution originate unquestionably and primarily from it (Rockström et al., 2020, p. 3). The global food system is also referred to as one of the major contributors to climate change, soil degradation and decline in rural populations, affecting exploitative labour conditions and, potentially, conflicts (Arneeth et al., 2019; Carolan, 2018; European Commission, 2020, p. 3; HLPE, 2019, 2017; Mbow et al., 2019; McGreevy et al., 2022; Rockström et al., 2020). It concurrently underpins the globalised obesogenic diet by incentivising large-scale monoculture production of a few highly

productive, energy-dense and low-cost commodity crops, while externalising social, health, and environmental costs (Benton and Bailey, 2019)—thus further undermining the sustainability of food systems (Fardet and Rock, 2020) and accelerating agrobiodiversity loss (Leite et al., 2022). Notably, these staple foods—processed using highly industrial techniques and combined with a wide range of synthetic chemicals—constitute the foundation of ultra-processed foods (UPFs) (Monteiro et al., 2019), whose hyper-palatability, inexpensiveness, ubiquity and long-shelf life (ibid.) mould dietary patterns that underlie the alarming and growing pandemic of obesity and diet-associated non-communicable diseases worldwide (Baker et al., 2020; FAO and WHO, 2019, p. 18; Monteiro et al., 2021). These global trends raise growing concern and call for a transformation of the globalised, industrial food system (FAO and WHO, 2019; Monteiro et al., 2019).

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There is consensus in the scientific community on the key role of consumers in transitioning towards sustainable food systems (Arneth et al., 2019; European Commission, 2020; FAO, 2022; FAO and WHO, 2019). Nevertheless, two contentious and virtually antithetical views of consumers prevail in food policy and academic literature. One standpoint calls attention to the *passive consumer*, an agent unaware of environmental sustainability and incapable of procuring nutritious and sustainable food (FAO, 2022). The *passive consumer* is portrayed “with a weak morality” and unwilling to change behaviour, compelling the implementation of policy measures based on “resource-use efficiency, technological innovations, environmental policy, and production structure changes” (de Bakker and Dagevos, 2012). As such, this consumer profile is typically embedded in and controlled by the industrialised food system (Campbell, 2004). The opposite view heralds the *food citizen* or *citizen consumer* as an individual whose agency can drive changes in the food system through more sustainable food choices (Booth and Coveney, 2015; FAO, 2022). The underlying idea rests in *behaviour change* and the transformative effect of conflating consumption and citizenship towards more social and environmental sustainability (Barr et al., 2011). The *food citizen* therefore stands as an innovator and promoter of alternative food systems, distinguished by a greater social and environmental responsibility (Campbell, 2004).

To promote and foster more sustainable food choices among consumers, different market and consumer-based food policy interventions have been developed in recent years, although often on the basis of contingent motivations rather than systemic approaches (Sedlacker et al., 2013). These measures include product labelling, information dissemination, communication campaigns, nutrition-, obesity- and school-food education, cooking programmes, nudging strategies, consumption taxes, certifications and subsidies to organic production (FAO, 2022; Sedlacker et al., 2013). Consumption of organic food, for instance, is highly promoted and prioritised at the European level (European Commission, 2020, 2022). Yet, even in countries leading the organic sector, the share of organic food in retail sales remains relatively low—reaching a maximum of 13 % in Denmark and 11 % in Austria (European Commission, 2023).

In Italy, the organic food market was recorded as the third fastest-growing in the EU between 2009 and 2019, following France and Germany (Ministero delle politiche agricole alimentari e forestali, 2021). However, in 2021, household spending on organic food amounted to only 3.9 % of the total agri-food market (Giuliano and Pugliese, 2022). At the same time, alarming figures from the National Institute of Statistics (ISTAT) reveal that 34.2 % of the Italian adult population is overweight and 12 % is obese (Bologna, 2022). Furthermore, national-level estimates indicate the daily energy intake from UPFs was “17.3 % and 25.9 % for adults and children/adolescents, respectively” (Ruggiero et al., 2021, p. 6264), and these figures are expected to rise in the future (ibid., p. 6269). The overall picture underscores the need for policy interventions aimed at shifting consumption patterns, highlighting the importance of understanding the motivations and drivers behind consumers’ food practices. The endorsement of the social and environmental value of organic agriculture was formally enshrined in Italian Law No. 23 of March 9th, 2022 (Gazzetta Ufficiale della Repubblica Italiana, 2022). Article 13 in this law recognises biodistricts as innovative territorial entities, defined as “a geographic area naturally suited to organic production, in which the various players in the territory—farmers, private citizens, tourist operators, associations and public administrations—enter into an agreement for the sustainable management of resources, focusing on organic production that involves all the parts of the supply chain up to consumption” (Dara Guccione et al., 2021) (author’s translation). Although this law partly reflects an alleged political emphasis on rural development, the food question has thus far mainly involved urban areas, thereby marginalising rural and mountain regions in the Global North (Brand and Pettenati, 2022, p. 1). Conversely, centrality should also be granted to these territories, including through the “food-related representations, expectations and

practices of their inhabitants” (Brand and Pettenati, 2022). Therefore, although the link between agriculture, landscape management and the significance of consumption of quality food are sometimes not perceived by consumers in biodistricts (Dara Guccione et al., 2021), understanding the degree of sustainability in their food practices can provide relevant insights into whether these territories can function as flagships for sustainable food systems.

Research on biodistricts is increasingly prominent (Assiri et al., 2021; Dara Guccione et al., 2021; Dias et al., 2021; Guareschi et al., 2020; Mazzocchi et al., 2021; Pugliese et al., 2015; Zanasi et al., 2020). Most scholars, however, have focused on the characteristics and prerequisites for establishing biodistricts, while only a few have investigated consumers, although primarily through the lens of governance and sustainability (Mendez et al., 2021). Hence, an in-depth investigation into consumers’ food habits and their underlying motivations within biodistricts remains largely absent. In an effort to fill this knowledge gap, this article aims to explore the following research question:

To what extent do food practices enacted daily by consumers in the Madruzzo and Cavedine municipalities in the Valle dei Laghi biodistrict foster, leave unaltered or undermine the trajectory towards sustainable food systems?

In doing so this article aims at mapping local consumers’ sustainable food practices through the systemic lens of agroecology, adding to the current research that adopts this approach in the Global North.

2. Context and methods

2.1. Context: situating the Valle dei Laghi biodistrict

The research was conducted in the Valle dei Laghi biodistrict, located in the autonomous province of Trento, Northern Italy (Cirani, 2023). Established in 2015, the biodistrict consists of three neighbouring municipalities¹: Madruzzo, Cavedine and Vallelaghi. The two predominant organic production systems in the area are vineyards and apple orchards, amounting to roughly 60 % and 14 %, respectively. Fieldwork was situated in the municipalities of Madruzzo and Cavedine due to their smaller surface area and higher population density compared to Vallelaghi. These two municipalities are also more integrated and connected with each other than the more distant and dispersed Vallelaghi municipality. Madruzzo and Cavedine expand across the two parallel Sarca and Cavedine valleys. The Sarca valley is dominated by monocultures of grapes and apples and is intersected by the busy state road SS45, which connects Trento to the north, and Riva del Garda to the south. The village of Sarche hosts the local shopping centre with the area’s largest supermarket (Orvea), the Cantina Toblino,² a retailer of large agricultural equipment, and other smaller shops—among them a small fruit and vegetable shop named *Isabella*, owned by a family-run local producer. The hamlet of Ponte Oliveti, home to a cement plant originally owned by Italcementi and, since 2016, part of the German Heidelberg Cement Group, is located a few kilometres to the east. The parallel Cavedine valley is less trafficked and cultivated with grapes and apples, although some cultivation of wheat is also present. The villages of this valley are served by small grocery stores and minimarkets. Because of the dominance of viticulture and apple production geared towards export, also illustrated in Fig. 1, the availability of local produce for everyday consumption is limited. As we will see, this structural

¹ The surface of the three municipalities amounts to 139,61 km² of the 6,206,86 km² total surface of the province of Trento, according to the official data available on the [Tuttitalia Provincia autonoma di Trento](https://www.tuttitalia.it/provincia-autonoma-di-trento/) website.

² The Cantina Toblino is a social cooperative of local winemakers and an important reference point for viticulture in the Valle dei Laghi (<https://www.toblino.it/en/>).



Fig. 1. Monoculture in the Sarca valley (photo by Maddalena Cirani).

constraint on local provisioning shapes and delimits the range of viable food practices available to residents, particularly those seeking to pursue alternative or sustainable consumption paths.

2.2. Methods

The study adopts a constructivist framework and qualitative research methods, entailing an inductive approach to research (Bryman, 2016, pp. 33, 375) in that “theory is the outcome of research which involves drawing generalizable inferences out of observation” (ibid., p. 22). Designed as a case study, the research aimed to expand and generalise theories through *analytic generalization* rather than enumerate frequencies (*statistical generalisation*) (Yin, 2009). Accordingly, the objective was to contribute to theoretical understanding of sustainable consumption by generating in-depth insights into the dynamics of food practices within a specific socio-material context.

In this respect, *convenience sampling* and *snowball sampling* were considered favourable for generating meaningful results as “springboard for further research” (Bryman, 2016). The first eight interviewees were suggested by the secretary of the Valle dei Laghi biodistrict and were drawn from her and her husband’s personal network, including friends, relatives, acquaintances, and work colleagues who agreed to take part in

the study. Each individual was then asked to provide the names of other potential interviewees (Yin, 2002). While several participants did not provide any names, others contacted me with further informants. Hence, through snowball sampling, the process of recruitment of participants is shifted from the researcher to the informants (Noy, 2008). A visual representation of this recruitment process and the territorial distribution of the respondents is displayed in Fig. 2. At the centre of the picture, indicated with the innermost blue-light circle, is the initial source of the first interviewees, i.e. the biodistrict’s administrative and management team. The respondents proposed by the biodistrict represent the first-generation informants indicated with blue-light squares. The informants proposed by the first-generation interviewees are the second-generation informants, placed around the central circle and highlighted in pink squares. Finally, the participants retrieved from the second-generation informants are the third-generation participants and identified in the purple squares. The number in each square indicates the chronological order of interviews with consumers, where 1 is the first interview and 34 the last. The list of participants and their characterisation is available in the appendix. The green squares refer to interviewees recruited into the research through other channels than the biodistrict. The blue squares with a capital “P” refer to the interviews with local producers. The diagram also indicates the place of residence

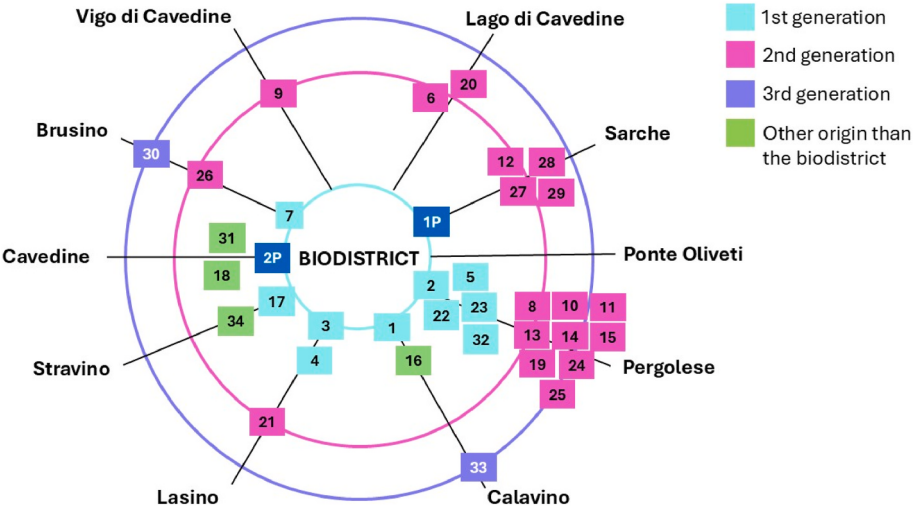


Fig. 2. Territorial distribution of the interviewees (diagram by Maddalena Cirani).

of each interviewee. Finally, the participants reflect a variety of socio-demographic variables such as gender, age, marital status and household composition, place of residence, employment status and profession.

The engagement of the interviewees in providing names for the next-generation of participants is evidenced in Fig. 3, highlighting the social network information that underpins the snowball sampling that “both uses and activates existing social network” (Noy, 2008).

During the fieldwork, the first author conducted thirty-four semi-structured interviews with open ended questions and direct observation. After transcribing the interviews, the codes, i.e. excerpts of the participants’ own words, were extracted and clustered in sub-categories. The sub-categories were subsequently aggregated into unifying categories. Hence, a category constitutes “a thread throughout the codes” which “often includes a number of sub-categories [...] at varying levels of abstraction” (Graneheim and Lundman, 2004, p. 107). Finally, the analytical themes, intended as “a recurring regularity developed within categories or cutting across categories” (ibid.), were identified, conceptually aggregating categories at the highest level of abstraction. The process of analysis was carried out in Excel, assigning each participant an individual column and placing the surfacing sub-categories derived from the codes in rows. The outcome of the process of coding and analysis is summarised in Table 1.

In the Results section, we present the views of the participants, where they have been given pseudonyms for anonymity. Importantly, as we will discuss below, the consumer profiles emerging from this analysis were not predefined according to socio-economic variables such as age, income, or household composition. Instead, they were constructed inductively through an interpretive analysis of participants’ everyday food practices, routines, and meanings. This approach, consistent with a practice-theoretical perspective, allowed us to identify distinct modes of engagement with food that cut across conventional demographic categories —emphasising how patterns of consumption are shaped by situated competences, material conditions, and culturally embedded understandings rather than by fixed social attributes.

3. Theoretical framework: theories of practice

This study adopts an inductive approach to research, drawing on the data collected during the field study to identify theories best suited to make sense of the empirical observations and uncover “the logic of the social world” (Bourdieu, 1998, p. 2). Accordingly, under this theoretical framework “the theoretical and the empirical are inseparable” (ibid.). Theories of practice emerged as a comprehensive interpretative tool to

Table 1
Process for the identification of the analytic themes.

Codes	Sub-category	Category	Theme
	Sustainable food practices	Kitchen gardens	Bundle of local food practices on the sustainability spectrum
	Own food production		
	Food sharing with other people	Food sharing	
	Food from family members		
	Food from friends/acquaintances	Purchasing of Italian products	
	Non-sustainable food practices		
	Trade-offs on sustainability/pragmatism	Seasonal food	
	Automatic choices (instinctive behaviour)	Meat consumption	
	Family/friends happiness	Cooking	
	Tradition	Waste management	
	Lack of time	Time availability	Drivers of change towards sustainable food practices and food systems
	Epistemology, discourse	Access to land	
	Understanding food and food systems	Taste and food quality	
	Confidence in food quality	Attitudes to food and food production	
	Taste and food quality		
	Community		
	Awareness of the existence of the biodistrict	Biodistrict	Views on the biodistrict

explore and explain the multitude of distinctive, yet patterned flow of practices displayed by local people. Theories of practice transcend “the structure-agency dilemma” (Warde, 2016) inherent in the dialectic between the deterministic behaviour of the *passive consumer*, trapped in the socio-economic structure and infrastructure, and the agency that underlies the deliberative actions of the *food citizen*. Within consumption studies, theories of practice challenge the juxtaposed historical phases of “individualistic explanations and cultural excess” (Warde, 2014, p. 297). Notably, practice theory has “social practices, and not people, as the central topic of conceptualisation and enquiry” and the way these practices “emerge, change and connect” (Watson and Shove, 2023, p.

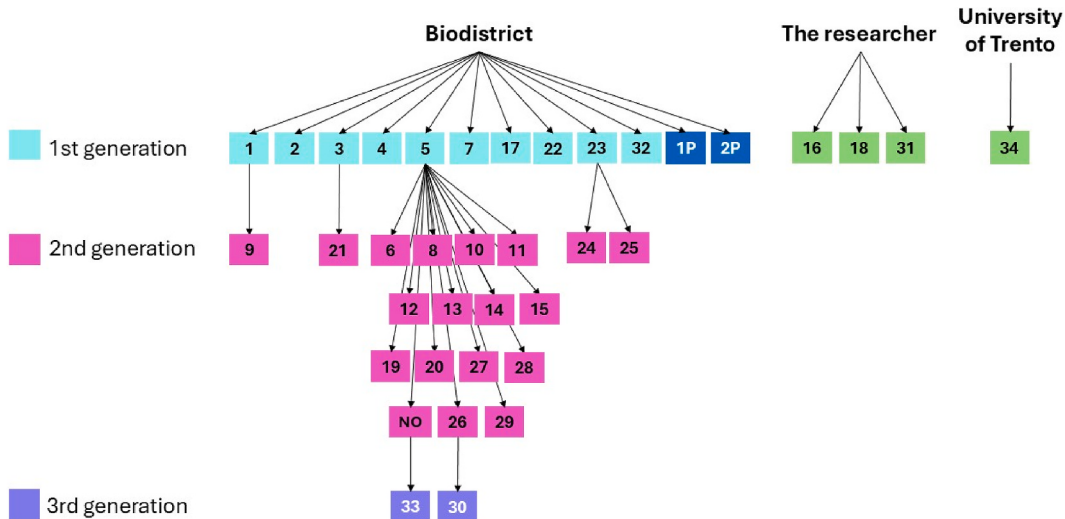


Fig. 3. “Sampling tree” from snowball sampling method.

377). In opposition to the model of the sovereign consumer, the core of investigation turns to “routine over action, flow and sequence over discrete acts, disposition over decisions, and practical consciousness over deliberation”, and, in reaction to “the cultural turn”, focus is on “doing over thinking, the material over the symbolic, and embodied practical competence over expressive virtuosity” (Warde, 2014). As such, everyday life is marked by “no plans or conscious decisions”, but “uncontrolled, effortless, associative, fast, unconscious and skilled” behaviour (Warde, 2016). Within this framework, “individuals feature as the *carriers* or hosts of a practice” (Shove et al., 2012, p. 7), but also as agents that determine the reproduction, survival, transformation or demise of a practice through instances of performance (Shove, 2014, p. 418). The constitutive, interconnected and mutually transformative elements of practices are identified in material, meaning and competences (Shove and Pantzar, 2005, p. 7). Material encompasses “objects, infrastructures, tools, hardware and the body itself”; meaning refers to “mental activities, emotion and motivational knowledge” (Shove et al., 2012, p. 23), and competence refers to “skill, know-how and technique” (Shove et al., 2012, p. 14). The distinction between “practice-as-entity” and “practice-as-performance” highlights the dynamic character of practices through the recombination of these elements in novel forms (Shove et al., 2012, p. 8). The active integration of the elements of practice and the plethora of contextualised complexes of practices also enables human agency, given that “practices make agency possible” (Shove et al., 2012, p. 126). This approach prompts a change in current policies dominated by “theories of individual attitude, behaviour and choice” (Shove et al., 2012, p. 164) in favour of “practice-oriented policy intervention” (Shove et al., 2012, p. 163) that pertains everyday unreflective practices and what people do rather than what people think.

To strengthen the application of practice theory in the subsequent analysis, this study explicitly incorporates the three constitutive elements of practices — materiality, competence, and meaning — when examining sustainable food practices. By foregrounding these elements, the analysis moves beyond abstract descriptions of behaviour or attitudes and instead reveals how sustainable food consumption is shaped through the dynamic, routine, and embodied interactions between people, things, and shared understandings.

4. Results

The findings below focus on the bundle of local food practices

displayed in Table 1. These practices embrace both business and global dimensions of the constituents of food systems, namely production, provisioning, preparation, consumption and waste management (HLPE, 2014, p. 29). They also include the individual and local spheres of processes of consumption such as provisioning in the form of shopping, budgeting and cooking (Warde, 2016, p. 14) and performances of eating like menus, social occasions and incorporation (ibid, p. 76). These perspectives on food paths and uses across scale and space are conveyed in Fig. 4, where the food system is transformed from linear to circular by incorporating waste into production. Given the limited space granted to consumer perspectives in literature, it was decided to give voice to the participants in a fluid way, thus limiting the interruption of their narrative with the analysis. Hence, the food practices emerging from the data are reported in the following sections with limited comments.

Although the following paragraphs pivot on food practices, a striking finding from the fieldwork is the almost total lack of familiarity of participants not only with the existence of the biodistrict but with the very meaning of the term. This result and its implications for policy will be expanded in the discussion and conclusions respectively.

4.1. Kitchen gardens for producing your own food

Strolling through this landscape, family kitchen gardens stand out as a rather widespread practice, where land is available, as shown in Fig. 5. Small plots are usually cultivated with a few staples such as aromatic herbs, salads and tomatoes.

On larger pieces of land, they produce a wide variety of vegetables and fruit, and occasionally also wheat and corn which are ground into flour for family consumption. A few interviewees have olive trees for their own olive oil production. Most of the interviewees emphasise they do not use any synthetic fertilizers or pesticides in their kitchen garden practices. A few, however, mention they resort to these substances when they perceive it as strictly necessary, or to describe the practices of other people. Debra, a retired state employee, refers to integrated agriculture, an agricultural approach which utilises a “minimum input of fertilizers, pesticides and machinery” (Vereijken, 1986, p. 389), when describing the cultivation practices implemented by her husband in their large orchard and vegetable garden. She describes it as a “very controlled” agricultural method that “only applies the essential”. She also comments that, “after all, organic farming uses copper, which is also harmful”, to justify their use of these substances. Most respondents, however, oppose

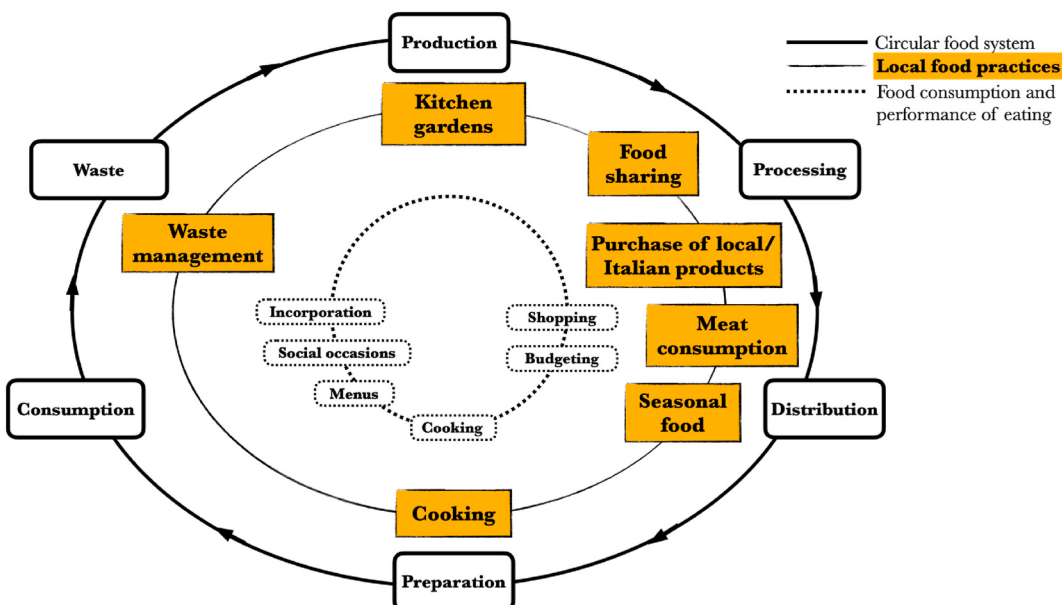


Fig. 4. Interconnection between circular food systems, local food practices and food consumption (diagram by Maddalena Cirani).



Fig. 5. Kitchen gardens in the municipalities of Madruzzo and Cavedine during February–March (photos by Maddalena Cirani).

the use any synthetic chemicals. Isabel, who rejects the use of pesticides in her kitchen garden, explains:

“My mum, who used to cultivate it before, had a habit of putting poison for snails. Now, fortunately my mum is old, we no longer allow her to use those things, because I prefer to have a healthy vegetable garden, without poisons of any kind.”

Dave, a retired lecturer who cultivates a large vegetable garden in his backyard, explains “I treat as little as possible. It means that all summer production sees nothing, no copper, no sulphur, nothing.”

Some respondent ascribed the local habit of cultivating kitchen gardens to economic considerations, although most participants cite food quality and trust as the main drivers, such as Rebecca, who cultivates a large kitchen garden to produce vegetables for herself and her two sons’ families. She states:

“I don’t do it for that [to save money]. It is because I am sure of my product, I know what I am eating. I want to have it all year round.”

4.2. Strengthening social relations through food sharing

Several interviewees report a production of 80 %–100 % of their vegetable consumption during summertime, and, at times, their vegetable production exceeds their needs. This sparks other positive practices such as preparing preserves and jams or freezing vegetables for wintertime. Sharing home garden produce is also common, not only among family members but also with acquaintances as a sign of friendship and appreciation. Daniel, who lived in Cavedine for years, recalls “I regularly found tomatoes, courgettes, aubergines, potatoes, and cherries outside the door. [...] It was very common”. Nancie explains that she exchanges food with her neighbour:

“My neighbour sows corn and then makes flour for polenta [...]. He gives some to me. We have a friendship and sometimes we exchange things. [...] We give [in exchange] some products from some co-operatives, some jam, some honey or a piece of cheese from the cowshed. [...] So, we return the favour.”

This form of bartering by “swapping” for instance eggs or honey between neighbours and friends without exchange of money is confirmed by other interviewees. Food can also be chosen as a payment

for services, as in the case of Shirely, who gladly helps a relative harvest chestnut in exchange for apples, pears or a rabbit, rather than money.

4.3. Trust in local and Italian products

With respect to food procurement, local and Italian products are more trusted than foreign items. Virtually all respondents purchase some fruit and vegetables at *Isabella’s* shop that sells mostly, though not entirely, her own produce. This family business produces conventional vegetables also for large retailers. During an informal conversation, *Isabella* explains that she earlier had tried to produce organic, but she was contested once because there was a small snail in a salad. She also recalls that having displayed unwashed carrots just picked from the field for sale, customers disregarded them, so she eventually had to throw them away. On the same note, *Melody* describes her attitude when choosing vegetables and fruits at the supermarket:

“We are all in the frame of mind to get the perfect product, me too, first. Obviously, if I see an apple there that is not beautiful, I look for a better one if I can.”

Nonetheless, most respondents state that they are not opposed to buy smaller, imperfect or unwashed vegetables and fruits. Purchasing products from trusted friends also emerges as a common practise. Although sometimes motivated by an environmental rationale, purchasing from local producers aims at economically supporting acquaintances while procuring higher quality food. *Linda*, for instance, explains her preference for shopping at *Isabella* this way:

“Zero km, lots of things obviously in season [...] and then because she’s a local girl so it’s nice to support her.”

Another interviewee explains her purchase of meat and a local variety of broccoli from a friend with the aim of supporting his effort to produce quality products. Yet, to secure access to special *terroir* products, Dave sometimes travels across Italy in search of small producers of excellence if products available locally do not have sufficient quality.

Italian food is regarded as higher quality than food imported from other European countries and, even more so, from countries outside the EU. Rebecca complains about the peppers in the supermarket:

“They’re square, perfect, they look like they’re made of plastic, they come from Holland. Once I even told [the stocker in the

supermarket] "But can you [...] sell peppers in July that come from Holland, that we are the homeland of peppers, of Solanaceae?" And he said, "Eh, but people want them perfect, they're cheap" [...]."

4.4. Meat consumption: reduction and preference for Italian and local products

Several people report having reduced their meat consumption in recent years partly because of concerns about health-related risks of eating meat from animals exposed to antibiotics and hormones. Katrina, for instance, a young lady who just finished her university studies, points out:

"Producing the meat we eat, maintaining animals or providing water, pollutes. [...]. Also because of how it [meat] is produced, in the sense that once upon a time there were more individual producers, everyone had their own animal and so you knew what you were eating [...]. Buying it now, you no longer have these certainties, to make things grow quickly."

While one household reports purchasing plant-based hamburgers as a substitute for meat, Shirley has another view on this and states:

"Of meat I only eat stuff we produce: chicken, hens, turkey."

Not everyone, however, is aware of meat related issues or can afford quality meat, like Nancie who purchases meat and most of her food, from the low-cost EUROSPIN food chain in Trento. Albeit some people show no interest in this issue, others care about animal well-being, such as Brenda, who prefers to buy eggs from "hens that lived happily" and abhors intensive animal rearing "in respect of the animal."

The preference for local and Italian products manifests also in relation to meat. Patrick, a young man, finds it strange to buy meat that has gone "around the world". He recalls:

"When I bought [meat] at ORVEA, reading the label it said, 'reared in Belgium', 'slaughtered in France' and 'sold in Italy'."

He decided therefore to source meat from animals reared in the surrounding valleys through an association of local producers in Trento. Brenda does the same, because Italian products appear safer to her from a quality and health perspective. Her partner, an organic producer of apples, also told her that "Italian legislation is much stricter on certain use of chemicals, whereas in other countries of the world, this protection is lacking". Melody, who likes to eat at McDonald's with her friends from time to time, also feels reassured when eating Italian meat. She explains:

"There has also been a lot of focus lately on the use of Italian meat [...]. It may not be the best meat there is in terms of quality, but not exactly the worst either."

4.5. Seasonal food

Connection with kitchen gardens increases awareness of the seasonality of food, counteracting the year-round availability of any type of vegetable and fruit in supermarkets. Katarina, whose parents have a vegetable garden and who sometimes harvests vegetables there, explains that it automatically seemed "counterintuitive" to her to buy courgettes in winter while studying at a university away from home. Sharon reports of a friend who downloaded an App that provides information about which products are naturally available in different seasons. Supermarkets are accused of not respecting seasonality and to contribute to this illiteracy, as in Rebecca's reflection:

"For so many it is normal to eat courgettes in winter, aubergine parmigiana in winter, melons ... I mean, why? Because supermarkets have everything, all year round. You find oranges in summer and strawberries in winter."

Patrick, who receives vegetables and fruit from his grandfather's garden, dislikes the lack of taste in out-of-season products:

"I also try as much as possible to follow the seasonality, knowing more or less the seasonality of the products. Then it is not always possible [...]. Strawberries, in winter, or tomatoes, I always try to avoid them also because they don't usually give the same taste satisfaction as in summer."

4.6. Cooking

Cooking from scratch is customary. Although women traditionally tend to cook more than men, this study also reveals that some women of different ages dislike this task, while some young, single men love to cook or do it to maintain a healthy lifestyle. One of them, Patrick, regularly bakes sourdough bread. He explains:

"I like cooking, so I mainly buy ingredients with which I then prepare my recipes [...]. When I have time, I rather cook twice as much and then reheat what I have made, but I hardly ever take anything pre-cooked."

On the other hand, Linda, a highly educated middle-aged woman, confesses "I don't like cooking, so it's a burden for me". Families with dependent children exhibit higher preference for convenience food and UPFs in the form of, for instance, locally produced frozen pizzas, frozen pre-cooked fried fish, packaged salads and soft drinks. However, when asked about cooking dinner, many respondents report that they prepare soups, cooked and fresh vegetables, and some report preparing steak, hamburgers or chicken, indicating their habit of also cooking meals. Most of the participants say their diets also include traditional Trentino cuisine such as *strangolapreti*, *canederli*, *polenta*, *strudel* or *gnocchi* and that they know how to cook it. Young people appear more inclined to eat at fast-food chains and even more so the children, according to some participants. To eat lunch with family is done, when possible, but dinner is the meal *par excellence* where family gathers. Participant observation during lunch and dinner confirmed this practice and how it is tightly connected to local cultural heritage and the social sphere.

4.7. Waste management

Food waste is unanimously criticised. Rebecca comments: "People throw away a lot of food [...]. Even children, they throw away everything on their plates". Restaurants also exemplify this cultural malpractice. Debra recalls: "My daughter worked in a pizzeria, and we had a pork, so she used to bring us [the pizzeria's leftovers]. But it was unbelievable how much stuff people threw away!"

Food waste in schools is highly criticised by some participants. Isabel, who works as a teacher in a kindergarten, reports:

"Today, for example, there was meat and mashed potatoes, which wasn't very well done, and it was thrown away. How much stuff is thrown away, that's something that's not even educational for children to see, all this waste of food."

Nancie makes the following point on school regulation on food waste:

"In school canteens there is so much waste [...]. I also have friends who work in the canteen, and they can't even take the food they discard, because of regulations."

Ken follows a specific food plan which enables him to plan his grocery shopping on a weekly basis, and he reports having no waste. Patrick purchases his food carefully, and he explains:

"I don't really have a weekly menu, but before I go shopping, I already decide what I'm going to eat during the week or on the following days and I always try to finish everything I buy and use

everything. And anyway, whatever, of course there is some waste [...] so I go and throw it in the food waste recycling.”

Local practices contribute to efficiently reduce food waste. Rearing hens, for instance, or other small animals, helps to dispose of food waste, in addition to providing a source of food. Frank owns a hunting dog, and his mother has hens, and a compost. Referring to food waste in the family, he explains:

“We have the compost, then we have the hens, and then we have the dog ... So usually the dog first, then what the dog doesn't eat, the hens eat. If neither the dog nor the hens eat it, it goes in the compost.”

To compost in your own garden is common. Isabel admits that some leftovers sometimes remain in the fridge but adds later that she has a compost in the garden. This waste management system reduces food waste and eventually contributes to soil fertilization and thus food production. Food sharing represents another way of avoiding wasting food. Plastic is a common complain among respondents who disapprove of the amount of plastic packaging collected after shopping in supermarkets. Several people also reveal health concerns about the ubiquitous use of plastic. Daniel comments:

“Plastics really are a contemporary cancer of galactic proportions, not only from a health point of view, really carcinogenic or with the potential of endocrine disruptors that it can give, in short, everything it carries.”

Several strategies are deployed to reduce it, such as to shop with your own plastic bag, to return egg-packages to *Isabella* or to bake your own bread to avoid the transparent plastic strips of bread bags. Some interviewees report that they place the price sticker directly on the item when they purchase fruit and vegetables in supermarkets, so as not to waste plastic bags, while others feel reassured about the use of biodegradable bags. Daniel, however, observes:

“Many people think they [plastics] are recyclable, but they are not. [...] We export them, and they used to end up in China, before they blocked us, now in Turkey and other areas.”

The system in the supermarkets creates a double bind for sustainability. Adam, for instance, tries to reduce food waste by purchasing products on offer that will otherwise soon be thrown away. This also allows him to try new products and save money, although he comments:

“[The discount] was a package with these plastic cups, not very sustainable ...”

5. Discussion

5.1. Completing and revising consumers' categories

The food practices that surface from the fieldwork indicate the existence of an articulated range of consumer profiles beyond the simplified and simplistic duality portrayed in the *passive consumer* and *food citizen* widely discussed and contended in literature and policy. Although these categories do exist, they seem to represent, in fact, only the extremes of more complex behavioural patterns. The observation of the emergence of counterintuitive and incongruous links between sustainable food practices and understanding of sustainability prompted us to look at our sample through the double lenses of practices and awareness of sustainability. This approach led to identify two additional profiles, which were lumped into additional consumer profiles coined as *pragmatic consumer* and *tradition-driven consumer*. Much consumer research has hitherto availed of factors such as age, gender, income or education to identify attitudes and personal values as predictors of consumption (Hughner et al., 2007; Rana and Paul, 2017, 2019). The practice-oriented rather than sociodemographic approach of this study has allowed us to unpack and define novel consumer categories, and

highlight how consumption should not be considered “the possession of goods” but “an activity actors engage in” (Plessz and Gojard, 2012, p. 5). The four consumer typologies do not strictly encapsulate separate entities but trends in conduct that can overlap within one individual, although the distinct attributes of one profile prevail. Consumer awareness of sustainability issues and the adoption of sustainable food practices do not necessarily appear to be interconnected and consequential, as illustrated qualitatively in Fig. 6.

Furthermore, almost all respondents adopt both some sustainable practices, such as cooking or limiting food waste, and non-sustainable practices like the occasional purchasing of plastic packaged food and UPFs. The salient characteristics of each consumer category are outlined in the sections below.

5.1.1. The passive consumer: unquestioned incorporation of the global food system

The *passive consumer* is embedded in the global food system. Although enacting some sustainable practices such as cooking, these individuals exhibit underestimation, weak understanding or lack of knowledge of the environmental, social, cultural, nutritional, political and economic implications of the industrial food chain. To provision in supermarkets without questioning the quality or origin of the products on sale is commonplace. When commenting on the fruit and veggies exposed on supermarkets' shelves, these individuals regard them to be of high quality and are instinctively attracted by their appearance, like Nancie who comments “Beautiful colours! Looks like very well-kept fruit, yes, very beautiful!”. At the same time, the owner of the local fruit and vegetable shop reported, in an informal conversation, how customers rejected the freshly harvested carrots on sale because still covered with soil. Organic products are generally disregarded or dismissed by these consumers, such as Linda who explains that she is not interested in organic food. These consumers also like to eat fast food, and, in relation to the impacts of meat production, many report not to pay attention to whether an animal was pasture-raised or intensively farmed. Most respondents report that they refrain from buying the widely available carbonated soft drinks and chips in supermarkets due to the difficulty of stopping to drink and eat them once consumption begins. Individuals who belong to the passive consumer category, however, tend to buy these products, for example for children at weekends or parties. Some recurring anecdotes shared by several interviewees about family members, friends or acquaintances, point to non-sustainable practices, particularly in families with children, that tend to waste considerable amounts of food, buy UPFs, including sodas and candies, and eat in fast-food chains.

5.1.2. The food citizen: conscious food choices to enhance sustainability

The *food citizen* or *citizen consumer* exhibits an understanding of sustainability and a commitment to sustainable life choices, unless prevented by exceptionally adverse contingencies. While they do not contest the food system per se, nor fight for “the development of a democratic, socially and economically just and environmentally sustainable food system” (Booth and Coveney, 2015, p. 16), like the *food citizen* portrayed in literature, these consumers show, nevertheless, curiosity and concern about the origins and implications of food production, which prompt them to retrieve information in the mass media, documentaries, investigative reports or magazines. These individuals feel a sense of responsibility for the consequences of their food choices and enact daily sustainable practices such as to purchase organic products, eat seasonal food, avoid plastic packaging, cook, drink tap water instead of sodas or water in plastic bottles, reduce waste or care for the welfare of animals. Daniel explains his motivations for his vegetarian adherence as:

“I made a vegetarian choice that was initially conditioned by the environmental factor. Second was health. And the third the ethical aspect [...]. I realise that today these values are completely reversed,

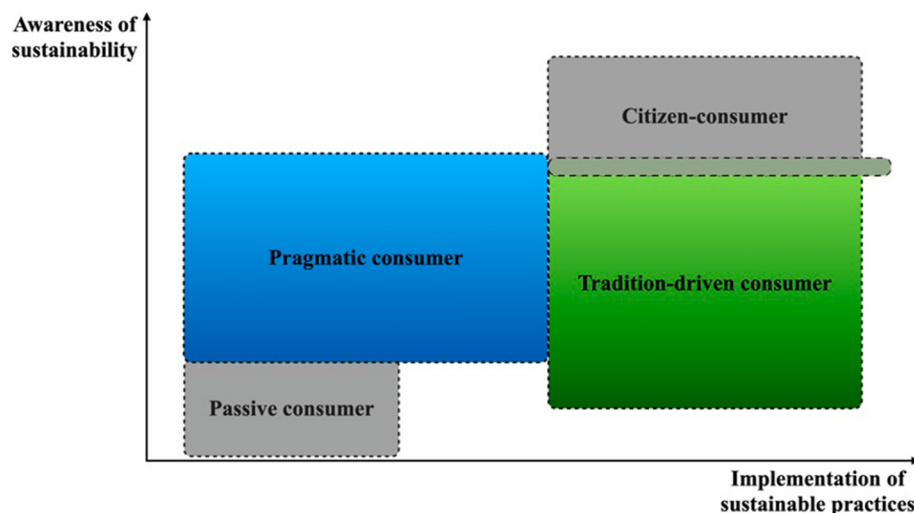


Fig. 6. Consumer profiles along the axes of 'awareness of sustainability' and 'implementation of sustainable practices' (diagram by Maddalena Cirani).

and I also wonder how I didn't get there sooner, that is, the ethical choice is the absolute priority."

This consumer profile is aware of the environmental and social impacts of industrial agriculture which translates into responsible eating by the selection of, for instance, seasonal, smaller or visually imperfect vegetables. Sharon says:

"I believe, however, we can all make a difference. Maybe not using the car to travel 200 m or, especially, in the shopping we do during the week. I think [...] we can make differences based on seasonality. If [...] in winter you get a craving for cherry tomatoes, [...] they are not good. A lot of money is spent to grow them because they must heat [the greenhouse] anyway and most of the time they are [...] bombarded with water, with products to make them ripen. They miss the sun and on top of that they cost a lot to transport."

5.1.3. The pragmatic consumer: convenience over sustainability

These consumers are aware of the issues related to the non-sustainability of the dominant food system, but compromise on everyday food choices based on contingencies and desires. In other words, their cognitive understanding of the implications of non-sustainable food practices does not guide the decision-making process. Adam states "Some people are really purists and say organic or nothing. I tend to be a bit more practical too". The economic dimension also directs the choices of these consumers. While reflecting on this topic, Erik explains that "We are bombarded, so at the level of the head there is a focus on the economic aspect [...]. So, one unconsciously, when one goes to buy, pays attention to the price and forgets. For me it is like that". In relation to organic food, price is a game changer even when economic restraints are not crucial. Dave admits he could afford paying for organic products, yet he complains that they are expensive and makes the point:

"I go to the organic or farmer's market but, wait a minute, ... just as I accept that it is imperfect, you have to sell it to me as imperfect."

Time constraints also often lead to non-sustainable practices such as to purchase UPFs like frozen pizzas or vegetables in plastic bags. Brenda and her husband generally cook meals from fresh ingredients although she explains "Anyway, maybe sometimes for reasons of time, we buy something already made because then it is easier to prepare". In families, children's requests also influence food selection, as in the case of Brenda who buys deep-frozen breaded fish to make her little daughter eat fish.

5.1.4. The tradition-driven consumer: sustainability in tradition

The *tradition-driven consumer* implements highly sustainable practices in daily life without necessarily understanding or care about sustainability. These practices, described in chapter 4, include to cultivate a kitchen garden, rear animals, make compost, share food, preserve summer produce for winter and cook. Shirley is almost self-sufficient on vegetables. She produces many different types of vegetables including salads, radicchio, carrots, peas, different types of beans and cabbages, tomatoes, cucumbers, courgettes, pumpkins, potatoes, aubergines, and strawberries. She also has fruit trees; cherries, apricots, plums, peaches, apples, pears and one chestnut tree. She cultivates her own corn and grinds it to produce polenta flour for her and her husband's consumption throughout the year. She also produced ten quintals of ancient wheat a few years ago within a project in the area. In addition to vegetables Shirley has hens and geese that provide her with eggs and meat. Pondering her motives for doing this, she reflects:

"If I must look at economy [...], I spend more on my vegetable garden than I do on shopping at the supermarket. It's a question of mentality. [...]. Maybe as a family, as a family footprint, the fact that we always ate things that came from our own work."

Sustainability, however, is not the priority that drives the *tradition-driven consumer*. Dave, for instance, while he is sustainable and cultivates his kitchen garden without synthetic chemicals, also demonstrates a lack of concern for sustainability when he drives many kilometres throughout Italy to secure the excellence of certain *terroir* products or when he is unwilling to pay for organic fruits or vegetables which may have a few defects or are smaller than conventionally grown produce. Nevertheless, individuals that intersect the *tradition-driven consumer* and the *citizen-consumer* can potentially implement more sustainable food practices than the two categories separately, as illustrated in Fig. 6.

5.2. Rethinking sustainable food consumption through practice theory

From a practice theory perspective, to distinguish between different consumer profiles offers valuable insights into the diverse logics that underpin food-related conduct. Rather than to interpret food choices as the result of individual, rational decision-making or value alignment, practice theory foregrounds how consumption is shaped by routinized patterns of doing, embedded in socio-material arrangements, culturally shared meanings, and embodied competences (Shove et al., 2012; Warde, 2016).

Within this framework, the profiles of the *food citizen* and the *pragmatic consumer* can be understood as operating primarily within what

Warde calls the “orthodox model of conduct,” which privileges conscious deliberation and voluntary decision-making (Warde, 2016, p. 100).

Food citizens strive to align their food practices with broader ethical commitments concerning health, environmental sustainability, animal welfare, and social justice. Their routines are intentionally reconfigured to reflect these concerns, and their identities are often constituted through these moral commitments. This confirms that “individuals do sometimes embark upon projects with conscious intention to change aspects of their own or others’ practices” such as new dietary regimes which inevitably involve “a shift in behaviour and a conscious adoption of a new identity” (Warde, 2016, p. 144). Thus, changes in their consumption practices are primarily supported by the integration of new meanings around food (e.g. reduction of meat consumption or becoming a vegetarian), access to enabling material infrastructures (e.g., farmers’ markets or organic shops), and evolving competences (e.g., food waste reduction).

Pragmatic consumers, by contrast, share an awareness of these ethical and health concerns but negotiate them within the constraints of everyday life. Their practices reveal a balancing act between aspirations and the pressures of convenience, affordability, and taste. While these consumers may read nutrition labels or occasionally choose eco-labelled products, their engagement with sustainability remains contingent on time, resources, and accessibility. For example, the consumption of UPFs in this group is often a practical response to the temporal rhythms and organisational features of daily routines or, at times, a ploy to disguise healthy foods, such as fish, in a form that is more palatable for their children.

In contrast, the *passive consumer* and the *tradition-driven consumer* conform more closely to what Warde terms the “portfolio model of conduct,” wherein action is shaped by routine, convention, and limited deliberation (Warde, 2016, p. 150).

Passive consumers engage in habitual practices largely guided by price sensitivity and sensory gratification. Their choices are shaped by what is materially available and culturally normalized, with minimal reflexivity. Sustainability, in this context, is either absent from their horizon of concern or overridden by more immediate considerations of affordability, convenience, aesthetics and palatability. Changes to their food routines tend to be reactive (e.g., triggered by promotions or shortages) rather than intentional or value driven.

The tradition-driven consumers, however, provide an important counterpoint. While not explicitly motivated by ecological or ethical considerations, their practices — such as food preservation, home gardening, or informal sharing networks — often produce low-impact, sustainable outcomes. These routines are anchored in local histories, transmitted skills, and resilient infrastructures. Echoing the notion of “quiet sustainability” (Smith and Jehlička, 2013), these practices, which occur outside the framework of direct or indirect market transactions and environmental and sustainability goals, are unintentionally very sustainable and engender significant social and environmental benefits. In this way, these consumers enact alternative food practices without articulating them in the language of sustainability, but simply reproducing “mental processes which are automatic, intuitive and emotion driven” (Warde, 2016, p. 113). *Quiet sustainability* practices are enacted, therefore, as automatism and incorporate both habits, as “embodied procedures”, and routines, as “temporal and procedural sequences which reliably and regularly fulfil purposes without deliberation” (Warde, 2014, p. 293). Their contribution lies in the persistence of historically and traditionally rooted, resource-efficient ways of provisioning that are culturally meaningful and practically effective.

Taken together, these profiles illustrate that sustainable food consumption is shaped less by abstract values or rational deliberation than by the practical logic of everyday life. This highlights the limitations of normative appeals to responsibility or knowledge-based interventions in fostering sustainable behaviour. A practice-theoretical lens, instead, draws attention to how consumption is assembled through the interplay

of embodied routines, material arrangements, cultural meanings, and institutional structures (Giovannini et al., 2023).

It also helps explain the paradoxes frequently observed in empirical research, that well-informed, ethically motivated individuals often struggle to enact sustainable behaviour consistently, while others who lack such motivations engage in practices with low environmental impact. These contradictions become intelligible when sustainability is understood as an emergent property of practice configurations, rather than the outcome of individual moral will or cognitive commitment.

Importantly, these consumer profiles should not be viewed as static or mutually exclusive categories. They represent fluid, overlapping dispositions shaped by the dynamic interplay between agency and structure. Individuals may move between these positions over time or occupy different positions across contexts. Understanding this patterned diversity provides a more grounded basis for designing interventions aimed at supporting sustainable food transitions. Rather than to rely solely on awareness campaigns or moral exhortation, policy and practice interventions should aim to reshape the socio-material conditions in which food practices unfold — modifying infrastructures, enabling competences, and supporting new meanings that make sustainable practices more accessible, convenient, and resonant across diverse consumer worlds.

5.3. *Rurality and quiet sustainability: trajectories towards sustainable food systems*

Rural studies scarcely question food practices in rural areas (Delfosse, 2019; Vandenbroucke and Delfosse, 2019). Contrary to the initial assumption, although the biodistrict converted part of the export-oriented monoculture of wine and apples into organic production, it does not seem to have impacted local consumers’ attitude towards organic food or their food practices. Consumer food procurement is rather shaped, instead, by the geographical peculiarities that characterise rural areas, notably scarcity of food entry points, restricted mobility (Vandenbroucke and Delfosse, 2019) and access to land. Literature indicates, in particular, how food supply strategies of residents in rural areas are driven by a mixture of concentration supply, drive services, convenience, family organisation and self-production (Vandenbroucke and Delfosse, 2019). In this regard, access to land enables the tradition-driven consumers to implement *quiet sustainability* practices, such as cultivating a kitchen garden and fruit trees as well as raising chicken or other animals for self-consumption, sharing and preserving produce, cooking and composting food waste. These food practices, emblematic of the countryside, are also reproduced in other rural regions (ibid., p. 596). While in France, however, a reinvestment of home gardening and organic self-production is observed and anchored in food transformations of rural areas in conjunction with newcomers, associations and public policies (Delfosse, 2019; Guiraud et al., 2022), in the Valle dei Laghi, kitchen gardens originate by local residents, framed by autonomous and automatic habits or sensitivity to these issues. Self-production and self-consumption therefore bring together tradition-related practices rooted in the historical food scarcity of rural and mountain areas (Guiraud et al., 2022; Quellier, 2004) with newly legitimised transformative and evolutionary approaches, also alien to retro-innovation (Marsden and Murdoch, 2006), which place rural areas as dynamic and integrated, rather than static and isolated spaces. These food practices, also referred to as “counter-handicaps” of rural areas (Plessz and Gojard, 2012), reproduce a world in which “producer cultures and consumption cultures are not ‘purified’, separate of social life but rather mutually constitutive” (DuPuis and Goodman, 2005, p. 9).

Eschewing the trap of idealising “unreflexive” localism (DuPuis and Goodman, 2005), the bundle of rural-related food practices above brings overarching benefits to sustainability in food systems. Edible home gardens, for instance, embody multifunctional and complex places of high agrobiodiversity, food security, household nutrition, health and well-being as well as social and cultural spaces (Calvet-Mir et al., 2012;

Galluzzi et al., 2010; Kortright and Wakefield, 2011; McGreevy et al., 2022). Together with other practices such as composting and animal rearing, they contribute effectively to reconnect people to natural rhythms and seasonality, bring circularity and reduce waste. These practices sustain trajectories towards sustainable food systems and actively contribute to vitalize rural areas. Food sharing and purchasing local food, for instance, play social roles of care, appreciation and esteem and strengthen the social fabric and social cohesion. Cooking from scratch, as “the epicentre of food democracy in action” (Booth and Coveney, 2015, p. 22), maintains specific recipes and varieties, dignifying the role of food as an identity for consumers and cultural patrimony for rural areas (Guiraud et al., 2022).

Regardless of whether such behaviours are supported by non-deliberative know-how and competence automatically reproduced in everyday life, or by deliberate intention (Delfosse, 2019), consumers’ sustainable rural food practices pave the way for the development of alternative food systems that prompt local, seasonal, affordable and nutritious foods and support a “change in all levels of the food system” (Campbell, 2004, pp. 345–346). As such they also contribute to rural development and well-being. The biodistrict, by focusing on organic farming and ignoring the specificities and multidimensionality of all these practices, varieties and recipes, standardises and neglects dimensions of sustainability that are equally or even more relevant to sustainability in food systems.

6. Conclusions

Embedded in the context of rural mountain areas, this study extends the understanding of consumer profiles in the light of food practices and advances the possibility for further studies to explore and generalise the findings. Notably, this analysis underscores the value of practice theory as a conceptual and practical framework for developing sustainable food policies that are attuned to the lived realities of diverse consumer profiles. By focusing on the entanglements of meaning, competence, and materiality that shape food practices, practice theory allows policy-makers to move beyond simplistic models of individual choice and design interventions that engage with the everyday contexts in which consumption occurs.

For food citizens, whose practices are shaped by ethical deliberation and conscious meaning-making, policies should go beyond basic consumer information to support infrastructures that enable consistent ethical consumption. This includes subsidizing access to local, organic, and fair-trade products; investing in community-supported agriculture (CSA) schemes and food co-operatives; and providing public recognition and resources for grassroots food initiatives. Educational programs that reinforce existing ethical competences and foster new skills — such as cooking, preserving, or sustainable shopping — can further consolidate these commitments. Policies should likewise pay attention to these consumers’ perspectives. As illustrated by the guidelines on meat replacement with plant-based foods in school canteens, this would entail, for example, allocating time and funding to support schools and school canteen personnel to enable a more effective implementation of these programmes, avoiding children’s rejection of poorly prepared meals and, consequently, food waste.

Pragmatic consumers, whose food choices are shaped by negotiation between values and constraints, highlight the need for policies that enhance health, accessibility and economic convenience. This includes more intelligible and consumer-friendly nutrition labels, that clearly warn and raise consumers’ awareness on the health risks of certain food, particularly UPFs. This would also compel the food industry to reduce the content of harmful substances in its products. Regulation should foster, in parallel, the availability and affordability of less industrially processed foods in favour of nuts, seeds, and legumes (Ohlau et al., 2022, p. 11). Similarly, to solicit the pragmatic consumer to choose sustainability, EU support for organic agriculture (European Commission, 2022, 2020) should be backed by greater convenience and a

reconfiguration of the meaning of organic food consumption on the societal scale.

For passive consumers, who act primarily through habitual and convenience-driven logics, practice theory suggests that shifting the material and normative context is key. Here, consumer preferences for taste and aesthetics suggest that regulatory measures such as restrictions on the marketing of unhealthy and unsustainable products can alter what is routinely consumed. It also indicates that policy should refrain from the trap of allowing simplistic reformulations of UPFs by the food industry. The impact of economic savings for this consumer profile also points to the potential efficacy of fiscal policy. At the same time, interventions that gradually reshape norms, for instance through public health campaigns or role-modelling in institutional settings, can help seed new meanings and competences.

Importantly, recognizing the *quiet sustainability* practiced by tradition-driven consumers calls for a broader policy vision that includes protection and support for culturally embedded practices. Despite the benefits of *quiet sustainability*, food policy agenda and research programmes have so far neglected and downplayed this scientific evidence, leaving these practices understudied and unimplemented (McGreevy et al., 2022, p. 1013; Taylor and Lovell, 2014). This relegation to a residual position can be ascribed to its origin in local and tacit knowledge. Although local knowledge with its capability to enhance sustainability and resilience (Ferreira and Neto, 2005, pp.7–8) has been granted legitimacy (Thompson and Scoones, 1994, p.60), a block of scientific literature still regards it as “unscientific” and in need to be “educated”, “directed” and “transformed” by formal research (Thompson and Scoones, 1994, p.59). Thus, while codified knowledge is incorporated “into educational programmes, examinations and courses” (Eraut, 2000, p. 114), forms of non-market food practices are still overlooked by the dominant policy paradigm. Policy should back, instead, urban and rural gardening initiatives, reinforce knowledge and skills on preserving traditional food through intergenerational programs, and support informal food networks and commons-based approaches, which offer robust, low-impact models of food consumption that deserve institutional recognition and protection from marginalization. Further gain would ensue if policy should adopt, like in France, agroecology-informed practices and principles in educational programmes and institutions “as the general principle of agricultural practice” (Wezel and David, 2020, p. 68), leading to increased environmental, social, nutritional, ethical, cultural, political and economic sustainability.

Returning to our central question — to what extent do food practices enacted daily by consumers in the Madruzzo and Cavedine municipalities foster, leave unaltered, or undermine the trajectory towards sustainable food systems — this study suggests that the biodistrict, in its current form, plays a relatively marginal role in shaping everyday food consumption. Rather, it is traditional routines, access to land, and the material and symbolic contexts of daily life that more strongly influence consumer behaviour. These findings do not dismiss the relevance of governance tools such as biodistricts but point to the need for them to include local civil society and more explicitly incorporate an understanding of everyday practices. Recognizing and engaging with the practical realities of food consumption can enhance the effectiveness of sustainability-oriented interventions and help ground food policy in the lived experience of diverse consumer groups.

CRedit authorship contribution statement

Maddalena Cirani: Writing – review & editing, Writing – original draft, Visualization, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Perrine Vandembroucke:** Writing – review & editing, Validation, Supervision, Methodology, Conceptualization. **Francesca Forno:** Writing – review & editing, Validation, Supervision, Methodology, Conceptualization. **Anna Marie Nicolaysen:** Writing – review & editing, Validation,

Supervision, Methodology, Conceptualization.

Declaration of interest statement

Maddalena Cirani: "I have nothing to declare"
 Perrine Vandenbroucke: "I have nothing to declare"
 Francesca Forno: "I have nothing to declare"
 Anna Marie Nicolaysen: "I have nothing to declare"

Appendix

List of consumers that participated in the research project through interviews.

Interviewee number	Participant anonymised name	Gender	Age	Residence	Profession
MTB_01	Isabel	F	62	Calavino	Kinder garden schoolteacher
MTB_02	Debra	F	66	Pergolese	Retired (former state employee)
MTB_03	Adam	M	50	Lasino	Schoolteacher
MTB_04	Dave	M	69	Lasino	Retired (former university teacher)
MTB_05	Betty	F	55	Pergolese	State employee
MTB_06	Ken	M	38	Lago di Cavedine	Graduated - project manager
MTB_07	Ralph	M	57	Brusino	State employee
MTB_08	Melody	F	20	Pergolese	Student – Technical agrarian
MTB_09	Miranda	F	53	Vigo di Cavedine	Schoolteacher
MTB_10	Patrick	M	26	Pergolese	Graduated - Winery
MTB_11	Katrina	F	25	Pergolese	Schoolteacher
MTB_12	Linda	F	61	Sarche	Medical doctor
MTB_13	Frank	M	30	Pergolese	IT engineer
MTB_14	Jennifer	F	26	Pergolese	Graduated - Landscape Sciences
MTB_15	Virginia	F	52	Pergolese	Unemployed
MTB_16	Dorothy	F	71	Calavino	Retired (cleaning lady)
MTB_17	Erik	M	49	Stravino	Bank manager
MTB_18	John	M	62	Cavedine	Retired (accountant, former bank manager)
MTB_19	Rebecca	F	67	Pergolese	Helps the husband in the organic farm
MTB_20	Sharon	F	50	Lago di Cavedine	Accountant, manager
MTB_21	Nancie	F	43	Lasino	Housewife, volunteering activities
MTB_22	Kevin	M	56	Pergolese	Winemaker
MTB_23	Karen	F	91	Pergolese	Retired
MTB_24	Amy	F	23	Pergolese	Student - Tourism Technical Institute
MTB_25	Janet	F	60	Pergolese	Housewife
MTB_26	Lucy	F	65	Brusino	Social worker
MTB_27	Vera	F	52	Sarche	Commercial technical institute
MTB_28	Brenda	F	46	Sarche	Unions official
MTB_29	Mary	F	44	Sarche	Office worker
MTB_30	Shirley	F	65	Brusino	Retired (no studies, manager)
MTB_31	Ralph	M	63	Cavedine	Retired (mechanical technician)
MTB_32	Cindy	F	24	Pergolese	University student (literature, linguistic)
MTB_33	Helen	F	65	Calavino	Retired (former schoolteacher)
MTB_34	Daniel	M	48	Stravino	Journalist
MTB_01P	Ivan	–	–	–	Organic bread producer
MTB_02P	Susan	–	–	–	Organic producer

Data availability

Data will be made available on request.

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